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NOV18ml

Ref: 8EPR-EP

Mr. Dennis M. Boal, Chair
Wyoming Environmental Quality Council
I lerschler Building, Room 1714
122 W. 25th Street

Cheyenne, Wyoming 82002

Subject: EPA Action on Revisions to the *Water Quality Rules and Regulations - Chapter 1, Wyoming Surface Water Quality Standards*

Dear Mr. Boal:

The U.S. Environmental Protection Agency Region 8 (EPA) has completed its review of the revisions to the *Water Quality Rules and Regulations - Chapter 1, Wyoming Surface Water Quality Standards* which relate to the implementation of requirements for effluent-dependant waters designated for 20 and 30 use classifications. These revisions were adopted by the Wyoming Environmental Quality Council (Council) on February 16, 2007 and submitted to EPA for review with a letter dated July 27, 2007 from John Corra, Director of the Department of Environmental Quality (DEQ). The submittal package included a statement of principal reasons and the adopted version of Chapter 1, Table A and Table B, and Implementation Policies. However, the submittal package was not complete until September 19, 2007 when EPA received certification from the Attorney General that the regulations were duly adopted pursuant to State law. Receipt of the Attorney General certification on September 19, 2007 initiated EPA's review pursuant to Section 303(c) of the Clean Water Act (CWA or the Act) and the implementing federal water quality standards regulation (40 CFR Part 131). On September 29, 2008, EPA acted under CWA Section 303(c) authorities on all other new and revised standards adopted by the State on February 16, 2007. EPA has now completed its review of the remaining portions of the State's submittal, and this letter is to notify you of our action.

The Region commends the Environmental Quality Council and the Department of Environmenta l Quality for adopting significant improvements to the State's water quality standards. In reviewing these provisions for consistency with the Clean Water Act and 40 CFR Part 131, EPA reviewed the methodology contained in Section VI of the Wyoming *Use Allainability Analysis (UAA) Implementation Policy*, February 2007. The information and

procedures in that document were considered by EPA to have been submitted by the State pursuant to 40 CFR Section l 31.6(t), which directs states to include in a submission of new or revised water quality standards, "information on general policies applicable to State standards which may affect their application and implementation ."

Clean Water Act Review Requirements

The Clean Water Act, Section 303(c)(2), requires States and authorized Indian Tribes' to submit new or revised water quality standards to EPA for review. EPA is to review and approve or disapprove the submitted standards. Pursuant to CWA Section 303(c)(3), if EPA determinesthat any standard is not consistent with the applicable requirements of the Act, the Agency shall,not later than the ninetieth day after the date of submission, notify the State or authorized Tribeand specify the changes to meet the requirements. If such changes are not adopted by the State or authorized Tribe within ninety days after the date of notification, EPA shall promulgate the needed standard pursuant to CWA Section 303(c)(4).[2] The Region's goal has been, and will continue to be, to work closely with States and authorized Tribes throughout the standards revision process as a means to avoid the need for such disapproval and promulgati on actions.

Today's Action

I am pleased to inform you that today, EPA is approving these revisions to the *Water Quality Rules and Regulations - Chapter I , Wyoming Surface Water Quality Standards.* The enclosure contains the detailed rationale for today's action.

Endangered Species Act Requirements

It is important to note that EPA's approval of Wyoming's water quality standards is considered a federal action which may be subject to the Section 7(a)(2) consultation requirements of the Endangered Species Act (ESA).[3] Section 7(a)(2) of the ESA states that "each federal agency ... shall ... insure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical ..."

EPA's approval of the water quality standards revisions, therefore, may be subject to the results of consultation with the U.S. Fish.and Wildlife Service pursuant to Section 7(a)(2) of the ESA. Nevertheless , EPA also has a CWA obligation, as a separate matter, to complete its water quality standards action. Therefore, in approving the State's water quality standards today, EPA

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[1] CWA Section 518(e)specifically authorizes EPA to treat Indian tribes as States for purposes of CWA Section 303.

[2] Although the provisions of CWA Section 303(c) state that EPA shall promulgate standards that replace disapproved state-adopted standards, pursuant to 40 CFR § 131.2 1(c), new or revised state standards submitted to EPA after May 30, 2000 are not effective for CWA purposes until approved by EPA. See 65 FR 24641-24653.

[3] Where EPA concludes that its approval will have no effect on listed endangered or threatened species, or is otherwise not subject to ESA consultation , EPA can issue an unconditional approval.

is completing its CWA Section 303(c) responsibilities. However, should the consultation process with the U.S. Fish and Wildlife Service identify information that supports a conclusion that one or more of these revisions is likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat, EPA will revisit and amend its approval decision for those new or revised water quality standards. EPA also notes that the provisions of the section 7(a)(2) consultation process described above will also apply to EPA's review of any future State action to adopt Class 20 or 30 uses for a specific waterbody.

New and Revised Water Quality Standards

The new or revised provisions listed below are approved without condition.

Standards Approved Without Condition

- Section 2(b)(xiii), the definition of "effluent dependent water;"
- Section 2(b)(xxxviii), the definition of "net environmental benefit;"
- Section 4(b)(v), the Class 2D use subcategory;
- Section 4(c)(iv), the Class 30 use subcategory;
- The provisions of Sections 4(e), 18, 22(b), and 24 that relate specifically to the Class 20 and/or 30 use classifications;
- The human health criteria provisions for Class 20 uses in Section 18;
- Revisions to Sections 25(d), 33(b), and 34(b);
- Section 36, entitled "Effluent Dependent Criteria"; and
- The provisions of Appendix A(b)(ii)(3) that relate specifically to the Class 20 and 30 use classifications.

Indian Country

The water quality standards approvals in today's letter apply only to water bodies in the State of Wyoming, and do not apply to waters that are within Indian country, as defined in 18 U.S.C. Section 1151. "Indian country" also includes any land held in trust by the United States for an Indian tribe and any other areas defined as "Indian country" within the meaning of 18 U.S.C. 1151. Today's letter is not intended as an action to approve or disapprove water quality standards applying to waters within Indian country. EPA, or authorized Indian tribes, as appropriate, will retain responsibilities for water quality standards for waters within Indian country.

Conclusion

EPA Region 8 commends the Council and the Department for the significant improvements to Wyoming's water quality standards. If you have questions concerning this letter, the most knowledgeable person on my staff is Tonya Fish, who can be reached at 303-312-6832.

Sincerely,

Carol L. Campbell
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

Enclosure

cc: John Corra, Director, Wyoming Department of Environmental Quality
John Wagner, Administrator, Water Quality Division, Wyoming Department of Environmental Quality
Brian Kelly, Field Supervisor, Wyoming Field Office, U.S. Fish and Wildlife Service
Amy Newman, Office of Science and Technology, EPA Headquarters

RATIONALE FOR EP A 'S ACTION ON THE REVISIONS TO WYOMING' S WATER QUALITY STANDARDS

This enclosure provides the detailed rationale for today's EPA action. The discussion below is organized into two sections, as follows:

Section I: Background information regarding ephemeral waters and aquatic life uses.
Section ll: EPA's action regarding Wyoming's new use classifications for effluent-dependent waters and procedure for calculating ambient-based criteria for those classifications.

The Wyoming water quality standards submittal package included revisions to Section VI of the *Use Allainability Analysis (UAA) Implementation Policy,* February 2007. This Policy was not adopted by the Council and is not a water quality standard. Nevertheless, because the implementation policies/procedures in this document affect the application of the standards and, as well, inform EPA as to a State's interpretation of its standards, EPA's review of State water quality standards includes review of such policies/procedures. Consideration of implementation policies, guidance, and practices is consistent with the provisions of 40 CFR Section l 31 .6(t), which requires States to include with their submittal "information on general policies applicable to State standards which may affect their application and implementation." The content of Wyoming's *Use Attainability Analysis (UAA) Implementation Policy* played an important role in EPA's decision to approve Wyoming's revised water quality standards.

I - BACKGROUND INFORMATION REGARDING EPHEMERAL WATERS AND AQUATIC LIFE USES

For many years EPA and Wyoming have discussed the appropriate aquatic life use designation and level of protection for ephemeral [1] and effluent-dependent2 waters, both common in this arid part of the country. Although Wyoming 's new use classifications are specific to effluent-dependent waters, understanding the State's approach for ephemeral waters is important to understanding the new effluent-dependent provisions. Effluent-dependent waters occur where a discharge has altered the hydrology of a naturally ephemeral waterbody. As such, eftluent-dependent waters begin as ephemeral waters, and establishing whether a particular waterbody is effluent-dependent requires careful examination of the physical habitat conditions (i.e., the flow regime) available to aquatic life in the absence of a discharge.

EPA acknowledges that all ephemeral waters sustain some level of aquatic life, at least periodically. And within the range of low flow habitat types, aquatic communities form a continuum, making it difficult, in the biological sense, to identify the threshold where an aquatic

[1] A stream that flows only in direct response to a precipitation or snowmelt event in the immediate watershed and whose channel does not intersect the ground water table.
[2] An effluent-dependent waterbody is one that would be ephemeral without the presence of wastewater effluent, but which has continuous or intennittent flows for all or a portion of its reach as the result of the discharge of treated wastewater.

life use begins. However, it is important to recognize that the federal regulation allows designated use removal where low flow conditions prevent the attainment of a use (40 CFR Section 131.1O(g)(2)). EPA discussed this issue in an Advance Notice of Proposed Rule Making (63 FR 36755), stating:

> Criterion number 2 allows removal of a designated use where natural , ephemeral, intermittent, or low flow conditions would preclude the use *unless these conditions may be compensated.for by the discharge ofsufficient volume of ejjl.uent discharges without violating State or Tribal water conservation requirements to enable uses to be met* [emphasis added]. Questions have been raised about exactly what the above italicized language means. EPA's interpretation of this phrase is that, where an effluent discharge creates an essentially perennial flow for what naturally would be ephemeral or intermittent waters, the resulting aquatic community is to be protected. EPA's current thinking is that in situations such as these, the second criterion for use removal means that a State or Tribe cannot remove a use of a water body where the augmented flow supports an aquatic life use,

Although the Region recognizes that even very dry water channels will have incidental aquatic life present during rare wet periods, the regulation does not require designation of an aquatic life use for such waters, unless discharge flows "compensate" for the absence of natural flow, thereby creating a use that must be protected. This issue has been addressed by EPA Region 8 previously in approving, pursuant to 40 CFR Section 131.1 O(g)(2), site-specific Wyoming decisions to remove aquatic life protections from certain ephemeral waters. See Table I and Figure 1. EPA has also disapproved site-specific Wyoming decisions to remove aquatic life protections from certain effluent-dependent waters. See Table I and Figure 2. These EPA disapproval actions were also taken pursuant to 40 CFR Section 131.1O(g)(2), and were based on the Region's conclusion that discharge flows augmented the natural flow condition and made attainment of an aquatic life use feasible.

Table I - Wyoming Classification Revisions for Ephemeral and Effluent-Dependent Waters

Waterbody	Classification Revision Adopted by Wyoming	EPA Action	Basis for EPA Action
Sand Creek	3B to 48	Approved 6/11/2002	131.10(g)(2)
Coal Draw	38 to 4B (above discharge)	Approved 3/5/2003	131.10(g)(2)
	38to 4C (below discharge)	Disapproved 3/5/2003	131.10(g)(2) Not Met
Red Creek	3B to 48	Approved 5/8/2003	131.1O(g)(2)
Whitetail Creek	3B to 4B	Disapproved 2/24/2005	131.10(g)(2) Not Met

Waterbody	Classification Revision Adopted by Wyoming	EPA Action	Basis for EPA Action
Unnamed Tributary to Whitetail Creek	3B to 4C	Disapproved 2/24/2005	131.10(g)(2) Not Met
Unnamed Tributary to Black Thunder Creek	3B to 48	Disapproved 9/14/2006	131.10(g)(2) Not Met
Unnamed Tributaries to Poison Spider Creek	3B to 48	Disapproved 9/14/2006	131.10(g)(2) Not Met
Unnamed Tributaries to Dead Horse Creek	38 to 4B	Approved 9/14/2006	131.10(g)(2)
Unnamed Tributaries to Lodgepole Creek	38 to 48	Approved 9/14/2006	131.10(g)(2)
Three Tributaries to Crazy Woman Creek	3B to 4B	Approved 9/14/2006	131.10(g)(2)

Figure I - Sand Creek Channel in the Upper Reach of the Drainage. Typical Section. From the UAA Submitted to EPA. Revision to Class 48 Approved b EPA 6/11/2002.

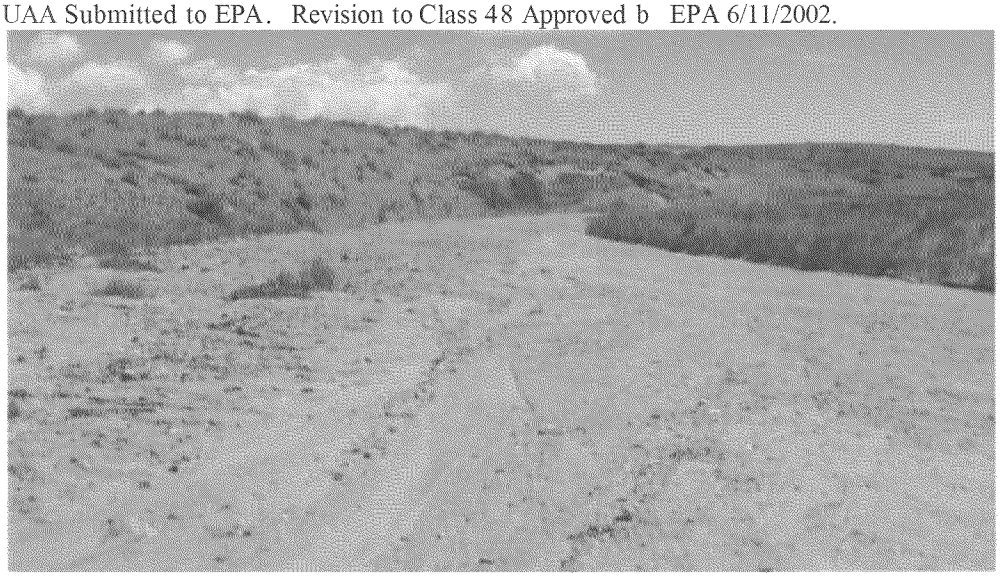

Figure 2 - Coal Draw Mainstem Channel 50 Yds Downstream of Discharge Point. From the UAA Submitted to EPA. Revision to Class 4C Disapproved by EPA 3/5/2003

If EPA were to take the position that even the driest waterbodies must be designated for aquatic life protection, Section 131.1O(g)(2) would only allow for reclassification of such waters to a different subcategory of aquatic life use. The Region believes such a position would be inconsistent with the plain language of Section 131.1O(g)(2), which establishes that States may remove aquatic life protections altogether - at least in some cases. Although the Act and the regulation set up the attainability of the Clean Water Act (CWA) Section 101(a)(2) uses as a rebuttable presumption, it was anticipated that there would be situations where that presumption could be rebutted. Although biological information can help inform the decision, the Region believes the ambiguity of the 40 CFR Section 131.1O(g)(2) provision (i.e., the ambiguity regarding low flow conditions that are - and are not - adequate to support an aquatic life use) affords States some discretion on this issue for which there is not a clear biological answer.

The Region has addressed this issue by applying a hydrologic threshold rather than a biological one. The phrase ·'naturally ephemeral with a short hydroperiod"[3] has been used to describe the hydrologic threshold the Region believes is appropriate in making a flow-based distinction between waters supporting and not supporting aquatic life uses. For example, the Region has approved Wyoming actions to either remove or not designate an aquatic life use in situations where: (1) the waterbody is naturally ephemeral with a short hydroperiod, (2) consistent with the "flow compensation"considerations of 40 CFR Section 131.1O(g)(2), there are either no

[3] This phrase is used by EPA Region 8 but is not used by Wyoming (e.g., see the Region's 2/14/2007 letter to Wyoming DEQ commenting on the proposed revisions).

regulated discharges or the discharges are intermittent and do not alter the natural ephemeral character of the water, and (3) a UAA demonstrates that (a) consistent with 40 CFR Section 131.1O(h)(1), there is no existing occurrence of an aquatic life use, and (b) consistent with 40 CFR Section 131.1O(g)(2), the natural, ephemeral flow conditions prevent attainment of an aquatic life use.

Wyoming's water quality standards and *UAA Implementation Policy* identify the State's method for determining when hydrologic conditions prevent attainment of an aquatic life use. As described in Section VI of Wyoming's *UAA Implementation Policy,* the State's approach allows the use of several types of information in making a determination as to whether a water body is effluent-dependent:

> The basic point is to show convincingly, through a weight of evidence approach, that a waterbody is comprised of essentially 100% permitted effluent and that without the effluent there would be no significant aquatic resource. There is no one best way to make this demonstration but the determination will be most convincing if multiple factors are assessed. These can include direct flow measurements, vegetation and wetland analysis upstream and downstream of the discharge, precipitation information, paired watershed analysis,historic information & testimony, etc.

A key element of the State's method is to evaluate the presence/absence of wetland vegetation as an indicator of whether the hydrologic conditions are consistent with the 40 CFR Section 131. l O(g)(2) test. The approach described in the *UAA Implementation Policy* has been used by Wyoming for several years. For example, the State's 2002 UAA for Sand Creek included the following:

> The occurrence of wetlands in and along the channel was used as a surrogate measurement for actual hydrologic conditions in lieu of long-term stream gaging. It also serves as a direct measurement of whether flow conditions are sufficient to support and sustain aquatic life. In general, areas that are inundated or saturated to the surface for as little as 7 days during the growing season will develop some level of wetland characteristics . Stream channels that lack a significant wetland component may be considered to have insufficient hydrology to support aquatic life.

Previous to today's action, the Region has approved Wyoming classification revisions for ephemeral waters that were based on this approach. In each case, a UAA was completed to determine the appropriate use classification. See Table 1. The Region continues to believe the State's approach provides a reasonable interpretation of 40 CFR Section 131.1O(g)(2), and that the State's approach is consistent with the hydrologic threshold recommended by the Region for interpreting 40 CFR Section 131.1 O(g)(2) (i.e., to limit its application to naturally ephemeral conditions with a short hydroperiod).

In summary, the water quality standards regulation allows aquatic life uses to be removed where low flows prevent the attainment of a use "unless these conditions may be compensated for by

the discharge of sufficient volume of effluent discharges without violating state water conservation requirements to enable uses to be met." In its 1998 ANPRM, EPA stated its interpretation of 40 CFR Section 131.1O(g)(2), noting that "the second criterion for use removal means that a State or Tribe cannot remove a use of a water body where the augmented flow supports an aquatic life use"(63 FR 36755). This interpretation of the regulation was the basis for three separate EPA disapprovals of Wyoming revisions that removed aquatic life protections from effluent-dependent waters.

As part of each of the EPA disapproval actions in 2003, 2005, and 2006, EPA's action letters discussed as a possible solution an approach very similar in concept to what has ultimately been developed and adopted by Wyoming for its effluent-dependent waterbodies. When Wyoming 's solution to the problem was proposed for public comment, EPA's February 14, 2007 letter supported adoption of the proposed revisions. Wyoming's response to the 40 CFR Section 131.1O(g)(2) requirement to protect aquatic communities in effluent-dependent situations is the creation of the new 2D and 3D classifications .

II- EPA'S ACTION REGARDING WYOMING' S NEW USE CLASSIFICATIONS FOR EFFLUENT-DEPENDENT WATERS AND NEW PROCEDURE FOR CALCULATING AMBIENT-BASED CRITERIA FOR THOSE CLASSIFICATIONS

Overview of the Revisions Adopted by Wyoming

New Sections 4(b)(v) and 4(c)(iv) establish new categories of aquatic life uses, 2D and 3D, applicable to effluent-dependent waters. Class 2D, effluent-dependent fisheries, will be applied to waters that support resident fish populations where support of the fishery is wholly dependent upon permitted effluent discharges. Class 3D, effluent-dependent non-fish bearing waters, will be applied to waters where the support of the non-fishery aquatic community is wholly dependent upon permitted effluent discharges. The designated uses for 2D are game or nongame fisheries, fish consumption, aquatic life other than fish, recreation, wildlife, industry, agriculture, and scenic value. Class 3D has the same designated uses except game or nongame fisheries and fish consumption are not included.

All of the Wyoming numeric aquatic life criteria in Appendix B apply to Class 2D and 3D waters except for: (1) parameters for which ambient-based numeric criteria are established on a site-specific basis pursuant to Section 36, and (2) chloride (see Sections 13 and 32), temperature (see Section 25(a)), dissolved oxygen (see Section 24), and ammonia (sec Sections 13 and 32), for which narrative criteria apply. The narrative criteria provisions of Sections 13 and 32 also provide protection for all Class 2D and 3D waters for all other parameters for which no numeric criteria apply. Section 13 provides that "toxic materials attributable to or influenced by the activities of man shall not be present in any Wyoming surface water in concentrations or combinations which constitute "pollution," and Section 32 provides that all Class 2 and 3 waters of the State must be "free from substances, whether attributable to human-induced point source discharges or nonpoint source activities, in concentrations or combinations which will adversely alter the structure and function of indigenous or intentionally introduced aquatic communities." Section 33(b) was amended to provide authority for the Water Quality Administrator to establish ambient-based criteria on effluent-dependent waters. Section 34(b) was revised to clarify that

ambient-based criteria do not need to be approved by the Environmental Quality Council and will be established according to the provisions of Section 36.

New Section 36 describes a performance-based[4] net environmental benefit (NEB) approach for establishing alternative ambient-based criteria for Class 2D and 30 waters. EPA in the preamble to the "Alaska" rule, described the "performance-based" approach, stating:

> The "performance-based" approach is particularly well suited to the derivation of site-specific numeric criteria and for interpreting narrative criteria into quantifiable measures. Proper construction and implementation of such an approach can result in consistent application of State and Tribal narrative water quality criteria and defensible site-specific adjustments to numeric ambient water quality criteria. Changes to a designated use (including temporary changes, e.g., variances) do not lend themselves to a "performance-based" approach. Designated use changes and variances differ from criteria changes in that they modify the intended level of protection. In contrast, site specific translations of narrative water quality criteria and site-specific adjustments to numeric ambient water quality criteria take additional information into account while protecting the designated use. As such the intended level of protection is no way modified. In addition, making use changes and issuing variances must include an evaluation of "attainability" of a designated use, taking into account factors such as natural conditions or economic and social impacts. Sec 40 CFR Section 131.1O(g).
>
> A "performance-based" approach relies on the State or authorized Tribe specifying implementation procedures (methodologies, minimum data requirements, and decision thresholds) in its water quality standards regulation. Adopting implementation procedures into State and Tribal regulations establishes a structure or decision-making framework that is binding, clear, predictable, and transparent.

When EPA approves a performance-based procedure, the criteria subsequently established using the approved procedure do not themselves require CWA Section 303(c) review and approval/disapproval. The criteria derivation procedure to be used by Wyoming was adopted into State regulations (i.e., Section 36(b)). The derived criteria that result from this performance-based approach are to be used for all purposes of the Act, such as NPDES permits and CWA Section 303(d) listing of impaired waters.

EPA, in the promulgation of the National Toxics Rule at 40 CFR Section 131.36, util ized a performance-based approach in the expression of water quality criteria for certain metals. EPA, in clarifying how this performance-based approach would be implemented, stated:

> ... EPA is implementing the criteria in terms of total recoverable metal while calculating the criteria value using the water chemistry adjustment provided by the "water effect ratio" procedure for certain metals as described and recommended in its current Guidance on Interpretation and Implementation of

[4] See the preamble to EPA's "Alaska" rule (65 FR 24648) for further discussion of performance-based approaches.

> Aquatic Life Criteria for Metals, May 1992. This approach takes into account, directly, water quality characteristics such as total organic carbon, pH, metals speciation and hardness ... (57 FR 60879)
>
> In order to assure that the metals criteria are appropriate for the chemical conditions under which they are applied, EPA is promulgating in terms of total recoverable metal and providing for an adjustment of the criteria through application of the "water effect ratio" procedure as described and recommended in the above Guidance document. (57 FR 60865)
>
> As EPA has noted elsewhere, the actual decision as to the numeric value assigned to a water effect ratio may be made during a State or EPA NPDES permit proceeding providing that adequate notice and opportunity for public participation is provided . (57 FR 60866)
>
> EPA reviews State-issued NPDES permits. To facilitate EPA consideration of a State-developed water effect ratio, a State should specify in documentation supporting that action what decisions were made for critical parameters such as toxicity testing protocols used, frequency of testing, critical periods for sampling and testing, and analytical quality control and assurance. Each of the factors must be articulated in a record as a basis for a determination that a water effect ratio is scientifically defensible. (57 FR 60866)

Similar to EPA's approach in the National Toxics Rule, it is important to understand that although EPA will review and approve/disapprove Wyoming actions to assign 2D or 3D use classifications to individual waterbodies, EPA will not separately review and approve the ambient-based criteria that result from application of the approved criteria derivation procedure using the Agency's CWA Section 303(c) authorities. However, through its NPDES permitting oversight role, EPA has the authority to review the implementation of the Section 36(b) site-specific criteria adjustment procedure to ensure the performance-based procedure is properly implemented. Should EPA determine that individually derived ambient-based criteria do not reflect proper application of the methodology , minimum data requirements, and decision thresholds specified in Section 36(b) and Section VI of the State's *UAA Implementation Policy,* EPA has the discretion to object to the issuance of NPDES permits, and, if necessary take actions to veto such permits under the authorities of CWA Sections 402(a)(5) and 402(d)(2).

Pursuant to authority provided by the water quality standards regulation at 40 CFR Section 131.1O(g)(3), the new provisions of Section 36(a) provide the Water Quality Admini strator the authority to make site-specific adjustments to the aquatic life criteria in Appendix B applicable to Class 2D (waters with fish) and 3D (waters with aquatic life other than fish) where four NEB conditions are met:

1) the waterbody is effluent-dependent;
2) a discharge has been shown to create an environmental benefit and removal of the discharge would cause more environmental harm than leaving it in place;
3) there is a credible threat to remove the discharge;and

4) appropriate safeguards are in place, ensuring that downstream uses will be protected and the discharge will pose no health risk or hazard to humans, livestock or wildlife (in addressing the potential adverse effects to humans, livestock and wildlife, the hazard analysis would focus on persistent and bioaccumualtive toxics in the discharge).

Where these four NEB conditions are satisfied, and for parameters where the Appendix B criteria are exceeded, ambient-based criteria will be calculated using water quality monitoring data that characterize the ambient condition. Section 36(b) establishes that such ambient-based criteria will be equal to the highest recorded concentration plus one standard deviation and will be implemented as instantaneous maximum (not to be exceeded) values.

An Additional Consideration Narrowing the Effluent-Dependent Situations Where Ambient-Based Criteria Are Authorized

Although not stated explicitly in the four NEB conditions identified in Section 36 and listed above, EPA's understanding is that Wyoming DEQ interprets the new/revised provisions[5] as authorizing adoption of 2D or 3D use classifications, and calculation of ambient-based criteria, only for effluent-dependent waters that, in the absence of a discharge, would meet the test for removing aquatic life protections pursuant to 40 CFR Section 131.1O(g)(2). The basis for this Wyoming interpretation is discussed below.

As discussed above (Section I), Wyoming's water quality standards and *UAA Implementation Policy* identify the State's method for determining when hydrologic conditions prevent attainment of an aquatic life use. A key element of the State's method is to evaluate the presence/absence of wetland vegetation as an indicator of whether the hydrologic conditions arc consistent with the 40 CFR Section 131.1O(g)(2) use removal factor. Under this Wyoming method , ephemeral waters that nevertheless support wetland vegetation are not eligible for aquatic life use removal based on 40 CFR Section 131.1O(g)(2). Such waters are considered by Wyoming to possess sufficient physical habitat to support aquatic life uses, even in the absence of a point source discharge. Removing a discharge from such waters would not eliminate the physical conditions that make an aquatic life use possible and, in Wyoming 's view, would not cause more environmental damage than leaving the discharge in place. This is why the revisions authorize adoption of the 2D or 3D classification, and calculation of ambient-based criteria, only for effluent-dependent waters that, in the absence of a discharge, would be eligible for aquatic life use removal pursuant to 40 CFR Section 131.1O(g)(2).

EPA agrees with Wyoming DEQ that its authority to adopt a 2D or 3D classification, and establish ambient-based criteria using the procedures in Section 36 of Chapter 1 and Section VI of the State's *UAA Implementation Policy,* is limited to effluent-dependent waters that, in the absence of a discharge, would be eligible for aquatic life use removal pursuant to 40 CFR Section 131. lO(g)(2). Further, the Region's interpretation is that derivation of NEB ambient-based criteria pursuant to 40 CFR Section 131.1O(g)(3) is defensible only for waters that, in the absence of the discharge, would qualify for aquatic life use removal under 40 CFR Section

[5] I.e., Sections 4(b)(v), 4(c)(iv), 33(b) and (c), 34(b) and 36.

131.1O(g)(2). The limited applicability of Wyoming's NEB approach was an important consideration that informed EPA's decision to approve the new provisions.

Options for Modifying the Aquatic Life Criteria That Apply by Default to 20 and 30 Waters

The introductory paragraph in Section 36 explains that:

> . ..the Water Quality Administrator may make modifications to the numeric values for pollutants listed in Appendix B on Class 2D and 3D waters. These modifications may be made on a categorical or site-specific basis... [Emphasis added.]

The underlined portion of the quoted language above refers to two options for modifying the default Appendix B criteria. First, categorical adjustments are authorized. An example of this approach would be to derive water quality criteria appropriate for the protection of the aquatic organisms expected to occur in 20 and/or 30 waters as a category. With respect to dissolved oxygen, for example, this could be accomplished by evaluating the dissolved oxygen requirements of aquatic organisms expected to occur, and deriving dissolved oxygen criteria that are appropriate for 20 and/or 3D waters as a category. In fact, dissolved oxygen would be an excellent candidate for development of 20 or 3D categorical criteria, since the numeric dissolved oxygen criteria in Appendix B do not apply to Class 20 and 3D waters. Execution of such an approach would be accomplished with a rulemaking process, and the new categorical criteria for the affected classifications would be adopted into Chapter 1 and submitted to EPA for approval. Such criteria would only become effective upon EPA approval, as provided in revisions to 40 CFR Section 131.21(c).

The second way of modifying the Appendix B criteria that apply by default to 20 and 30 waters is to implement the ambient-based site-specific criteria derivation procedure described in Section 36(b) and the State's *UAA Implementation Policy.* The Region does not read the language quoted above as authorizing a categorical approach to ambient-based criteria using the procedures in Section 36(b). First, the word "categorical" does not appear in Section 36(b) and there is no discussion of what a categorical approach to ambient-based criteria might entail. Second, it is clear from the details of Section 36(b) and the State's *UAA Implementation Policy* that the procedure is limited to site-specific applications. Third, because the water quality of discharges to effluent-dependent situations is variable, there is no feasible way to accurately and appropriately calculate such ambient-based criteria on a categorical basis. Therefore, the Region concludes that the Section 36(b) ambient-based criteria option for 20 and 30 waters is limited to site-specific (and not categorical) application.

Applicability of the Federal lJAA Requirement to the New 20 and 30 Classifications

The CWA and EPA's water quality standards regulation effectively establish a rcbuttable presumption that the CWA Section 101(a)(2) uses, protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water, are attainable and should apply to all waters. This presumption can be rebutted, but only where it is affirmatively demonstrated that such uses arc not attainable (see 40 CFR Section 131.IO(j)).

The mechanism for evaluating attainabi lity is the use attainability analysis (UAA). EPA's water quality standards regulation, at 40 CFR Section 131.1OU), specifies when a UAA is necessary. The regulation , at 40 CFR Section 131.1O(g), further identifies six specific use removal criteria that may be considered in evaluating whether attaining a use is feasible. Section 33(b) of the revised Wyoming surface water quality standards includes six use removal criteria that are essentially the same as those in the federal regulation.

Although a UAA is not required to create the new 2D and 3D use classifications (i.e., the new categories of protection), in some situations application of the new 2D or 3D classifications to individual waters will trigger the requirement to conduct a UAA. Inother situations, application of the new 2D or 3D classifications to individual waters will not trigger the requirement to conduct a UAA. However, for reasons discussed below, in both situations identical supporting evidence will need to be developed, made available for public review, and submitted to EPA.

Importantly , 40 CFR Section 131.1OU) provides as follows:

> A State must conduct a use attainability analysis as described in §131.3(g) whenever: (1) The State designates or has designated uses that do not include the uses specified in section 101(a)(2) of the Act, or (2) The State wishes to remove a designated use that is specified in section 101(a)(2) of the Act or to adopt subcategories of uses specified in section 101(a)(2) of the Act which require less stringent criteria. 40 CPR Section 131.1O(j)(2).

Accordingly, where there is interest in applying the 2D or 30 classification to an individual waterbody , and the change in classification would trigger the 40 CFR Section 131.1 O(j) requirement , a supporting UAA must be conducted to determine whether the revision is appropriate. Situations that would trigger the UAA requirement include revisions that would replace an aquatic life classification with another classification that either (1) does not provide for aquatic life protection, or (2) provides for aquatic life protection, but would require less stringent criteria.

EPA interprets the latter category to include Wyoming proposal s to adopt the 2D or 3D classification as a replacement for any of the aquatic life classifications that do not authorize ambient-based criteria (e.g., 1, 2AB, 2A, 28, 2C, 3A, 3B, or 3C). The principal reason[6] is that ambient-based criteria may be established for 2D or 3D waters, and by definition, such ambient-based criteria are less stringent than the criteria assigned to Wyoming's other aquatic life sub-categories. Further, because derivation of ambient-based criteria is authorized for 2D and 3D waters, EPA and the State may not know at the time of the classification change whether any ambient-based criteria will need to be established . Any such ambient-based criteria will be established pursuant to a pre-approved performance-ba sed approach, and the derived criteria for individual segments will not be subject to separate EPA CWA § 303(c) review and approval. Accordingly, EPA will make its decision regarding whether a given waterbody is properly classified and eligible for alternative Section 36(b) criteria at the time the 2D or 30 classification

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[6] EPA also notes that, in contrast to some of Wyoming's other classifications, the 20 and 30 classifications do not include numeric criteria for ammonia , chloride, dissolved oxygen and temperature. This provides an additional reason why 20 and 30 include less-stringent criteria compared to certain other Wyoming classifications.

is adopted and EPA determines that the Section 36(a) NEB conditions are met, consistent with 40 CFR Section 131.10(g)(3).

Accordingly, the Region has concluded that a Wyoming proposal to adopt a Class 2D or Class 3D classification as a replacement for any of the aquatic life classifications that do not authorize ambient-based criteria must always be supported by a segment-specific UAA demonstrating that the 40 CFR Section 131.10(g)(3) criterion is met.

In other situations, application of the new 2D or 30 classifications to individual waters will not trigger the UAA requirement. For example, where the waterbody currently has a 4A, 48, or 4C classification, and there is interest in changing the classification to either 2D or 30, this would not trigger the UAA requirement. The key difference is that such a revision would be an "upgrade" in that it would replace a classification that does not provide for aquatic life protection with a classification that does provide for aquatic life protection. Although such a revision would not trigger the 40 CFR Section 131.10(j) requirement to conduct a UAA, identical supporting evidence would need to be developed, made available for public review, and submitted to EPA. The principal reason is that ambient-based criteria may be established for 20 or 3D waters. On this point, it is important to remember that the legal basis for ambient-based criteria is the use removal factor at 40 CFR Section 131.10(g)(3) which requires a site-specific factual demonstration that relaxation of the default Appendix B criteria is appropriate to achieve a net environmental benefit (NEB). Because any such ambient-based criteria will be established pursuant to a performance-based approach that does not include EPA CWA § 303(c) review and approval with respect to criteria established for individual segments, EPA must make its decision regarding whether an NEB approach is justified under 40 CFR Section 131.10(g)(3) at the time the 20 or 3D classification is adopted for that waterbody.

Therefore, in order for EPA to approve adoption of a Class 2D or 3D classification for a waterbody, and pre-authorize derivation of ambient-based criteria, Wyoming must develop a defensible justification that the factual situation satisfies the 40 CFR Section 131.10(g)(3) factor, *even if the proposed change in classification itself does not trigger the 40 CFR Section 131.100) UAA requirement.* In addition, evidence will need to be developed to support the choice between 2D and 3D. Therefore, the supporting evidence that will need to be developed includes: (1) factual evidence demonstrating that the waterbody meets the four NEB conditions identified in Section 36(a), and (2) sufficient evidence to justify the choice between 2D and 3D (e.g., biological assessment results or other information sufficient to determine whether the use does or does not include fish).

Consistent with the above discussion, the Region recognizes that the evidence requirements to support application of 2D or 30 are identical regardless of whether or not the UAA requirement is triggered. This results in a consistent approach that can be applied to both situations.

The Region notes that UAAs completed previously to evaluate whether adoption of a Class 4 use is appropriate were written to evaluate whether natural, ephemeral flow conditions prevented attainment of an aquatic life use pursuant to 40 CFR Section 131.10(g)(2). Although there is likely to be information in those UAAs that will help to evaluate whether NEB Condition 1 applies (i.e., whether the use is effluent-dependent), those previous UAAs do not address all four

of the NEB conditions in Section 36(a) nor the use removal factor at 40 CFR Section 131.1 1O(g)(3). Accordingly , UAAs that were completed previously to evaluate a potential revision to Class 4 will not be sufficient to support a proposed revision to 2D or 30.

Reclassifying Individual Segments and the Potential for Permit Limits to be Affected

As discussed above, application of a 20 or 30 classification to individual water segments will be based on a UAA or justification that addresses the four NEB conditions identified in Section 36(a). In completing this analysis, the State will demonstrate the applicability of the use removal factor identified at 40 CFR Section 131.1O(g)(3). The segment where the 20 or 30 classification is to be applied, i.e., the portion of the stream that meets the four NEB factors, will be clearly identified. Pursuant to Section 34(a) of Chapter 1, reclassification of a waterbody to either a 20 or 3D classification will be considered a water quality standards revision, and the State will submit all site-specific revisions that apply a 20 or 30 classification to EPA for review and approval/disapproval. Pursuant to Section 4(e) of Chapter I, the Wyoming Surface Water Classification List will be updated to include these new classifications.

EPA expects that adoption of the new 20 and 30 use classifications will be considered for existing situations that meet the Section 36(a) NEB criteria due to previously authorized discharges. EPA is aware that there are a number of effluent-dependent waters in Wyoming that appear to be candidates for application of the new classifications. Where a 20 or 3D classification is adopted for existing effluent-dependent waters, Section 36(b)(1) of Chapter I and Section VI of the State's *UAA Implementation Policy* require that a year of water quality data will be collected to support decisions about whether ambient-based criteria are needed. See Section 36(b)(1). Any ambient-based criteria will be calculated using the procedures in Section 36(b) of Chapter I and Section VI of the *UAA Implementation Policy*. Wyoming will also maintain a publicly available, comprehensive list of all ambient-based criteria decisions made using the Section 36 process.

Based on discussions with Wyoming, EPA's understanding is that the discharge permits most likely to be affected by adoption of a 20 or 30 classification are the permits for produced water discharges from conventional oil and gas operations. The Region's understanding is that there are more than 400 of such permitted discharges in Wyoming. Adoption of a 2D or 30 classification may affect effluent limits included in permits for such discharges, e.g., where the State determines it is appropriate to use the Section 36(b) procedure to calculate ambient-based criteria. However, where such conventional oil and gas discharges connect to a downstream segment with a higher classification, Section 36(a)(4) requires that appropriate permit limits will be established to achieve not only the water quality standards for the immediate receiving (Class 20/30) segment, but also the water quality standards assigned to connected downstream segments.

The requirement to protect downstream waters at Section 36(a)(4) is an important aspect of Wyoming's approach for effluent-dependent waters. It is important to understand that, even for a segment where a 20 or 30 classification is adopted, if there is a hydrologic connection to a downstream water with more stringent water quality standards, discharge permits must be developed to meet the standards assigned to the segment that receives the discharge, and also

downstream segments. This is consistent with the protection of downstream water quality standards required by federal regulations at 40 CFR Section 122.4(d) and 122.44(d).

EPA understands that Wyoming will not assign a 20 or 30 use classification to a currently ephemeral waterbody until that waterbody becomes effluent-dependent. EPA's understanding is that, in situations where a new discharge is proposed to an ephemeral waterbody, consideration will be given to adopting a 48 use classification for that water prior to initiation of the discharge. As discussed in Section I of this action letter, Class 48 will be considered for ephemeral stream channels that lack the hydrological potential to support and sustain aquatic life. A UAA will be conducted to determine whether Class 48 is appropriate. If a 48 use classification is assigned, the initial water quality-based permit limits for the new discharge may be based on Class 48 requirements (unless more stringent limits are determined appropriate to protect downstream segments). In addition, appropriate monitoring requirements will be included in the initial permit. Once the initial permit has been issued and the new discharge has been initiated, Wyoming will then have an opportunity to assess whether an effluent-dependent use is created that is eligible for a 20 or 30 use classification. A second site-specific analysis will be conducted to determine the most appropriate use classification. Where a 20 or 30 classification is adopted, subsequent (re-issued) permits would potentially contain limits based on 20/30 requirements (unless more stringent limits are appropriate to protect downstream waters). Reasons given by Wyoming for this approach are that it avoids the need to prospectively adopt and implement 20 and 30 requirements in situations where the characteristics of the created aquatic life use are not yet known, and water quality data necessary to implement the Section 36(b) procedure are not yet available.

Further, based on discussions with Wyoming OEQ, it is EPA's understanding that adoption of a 20 or 30 classification is unlikely to affect the pollutant-specific permit limits for existing/new produced water discharges from coalbed methane operations. One of the initial steps taken by OEQ after receipt of an application for redesignation of a waterbody to a use classification which is related to ephemeral or effluent-dependent conditions, is to evaluate the projected flows from discharges to the segment, and determine the relative proximity to a downstream segment that would require compliance with more stringent standards, i.e., standards of a more protective use classification. If it appears that a discharger would be required to meet the more stringent standards, regardless of the standards that apply to the ephemeral waterbody, OEQ will inform the discharger(s) that those more stringent standards will apply to the effluent even if the ephemeral or effluent-dependent reclassification is adopted. Historically, this outcome, i.e., the requirement to apply the more restrictive standards, has been reached for many, if not all of the applications that involve discharges from coal bed methane operations. In addition, since there is very little chance for dilution in a segment of the watershed that has only ephemeral flows, the State's practice is to include limits for all such discharges based on achieving end-of-pipe compliance with the pollutant-specific aquatic life criteria in Appendix B, or more stringent antidegradation -based limits.

Discussion of Wyoming's UAA Procedure for 2D and 30 Classifications

The State added a new Section Vl to its *Use Attainability Analysis (UAA) Implementation Policy.*[7] Section VI documents the data requirements and decision making process that will be used to determine whether each of the four Section 36(a) NEB conditions are satisfied. In Section VI, the State describes the general process for effluent-dependent waters, as follows:

> Therefore, the complete process for designating a water as either class 20 or 30 contains three parts. The first is completing a Use Attainability Analysis (UAA) that demonstrates that the subject waterbody is in fact effluent dependant and eligible for site-specific, ambient-based criteria. This part includes a demonstration that there is an environmental benefit associated with the discharge and a credible threat to remove the discharge. The second part is a hazard analysis that includes a specific screening of the discharge for the presence of bioaccumulating and bioconcentrating pollutants and a more general analysis to identify the pollutants for which ambient-based criteria will be established . The final part is to calculate and establish site-specific ambient-based criteria for those parameters that exceed the otherwise adopted statewide criteria (Chapter 1, Appendix B).

Each of the three parts in the process for designating a water as 2D or 30 is addressed in Section VI of the Wyoming *UAA Implementation Policy.* A discussion of the process follows below.

Part 1 of the process addresses whether a water body is effluent-dependent, whether the discharged water results in an environmental benefit, and whether there is a credible threat to remove the discharge. In order to prove effluent-dependency, the State must determine that the waterbody "is comprised of essentially 100% permitted effluent and that without the effluent there would be no significant aquatic resource." Multiple factors are assessed in this determination, including but not limited to "direct flow measurements, vegetation and wetland analysis upstream and downstream of the discharge, precipitation information, paired watershed analysis, historic information & testimony." Section VI states that the surface waters created by the discharge are presumed to "have an environmental benefit for the aquatic life that colonizes it and for the habitat and food sources that surface water bodies provide to semi-aquatic and terrestrial wildlife species." Other presumed uses include livestock watering, irrigation and industrial uses, recreational and scenic values. Section VI also states:

> Because these benefits are presumed, it is not mandatory that the UAA exhaustively identifies and measures each actual benefit that occurs associated with the waterbody but should make an effort to generally characterize the natural and human uses of the water.

[7] This Policy was not adopted by the Council and is not a water quality standard. Nevertheless, because implementation policies and procedures affect the application of the standards and, as well, inform EPA as to a state's interpretation of its standards, EPA reviewed the new Section VI and the content of this policy played an important role in EPA's conclusions about the acceptability of Section 36. In terms of EPA's water quality standards regulation, EPA considers Section VJ as "information on general policies applicable to State standards which may affect their application and implementation. (See 40 CFR Section 131.6(1)).

> This presumption of environmental benefits, however, is not absolute and may be overridden where the quality or condition of the effluent-dependant waterbody poses a threat or hazard to non-aquatic wildlife, livestock or industrial uses or human health.

Most, if not all, of the conventional oil and gas producers in Wyoming, arc included in the "Beneficial Use" subcategory of the Oil and Gas Extraction Point Source category. The effluent guidelines for this subcategory, as promulgated by EPA in 40 CFR Part 435, require that effluent discharged to surface waters must be "of good enough quality to be used for wildlife or livestock watering or other agricultural uses and that the produced water is **actually put to such use during periods of discharge"** [emphasis added]. Therefore, a discharger must demonstrate that these uses are actually occurring in order to receive permission to discharge to surface waters through issuance of a Wyoming Pollutant Discharge Elimination System (WYPDES) permit. EPA believes that it is reasonable for the State to make the presumption that effluent discharges regulated under the Beneficial Use subcategory are actually used for livestock watering and irrigation, since a demonstration of those uses is required during the WYPDES permitting process for these facilities.

Also, the State will have to make a determination as to which types of aquatic life (i.e., communities of aquatic life other than fish vs. fish populations) currently exist in each effluent-dependent water in order to accurately assign the 2D or 30 use designation to each candidate waterbody . Therefore, confirmation of those beneficial uses is also required at an earlier step in the UAA/use designation process.

The Part I requirement to show a credible threat to remove the discharge involves application of the concept of net environmental benefit, "that weighs the potential for loss of a permitted effluent against the benefits of instream flow. It infers that there is some possibility that the discharge could be discontinued." Regarding the showing of a credible threat to remove discharges from oil and gas operations, Section VI states:

> The demonstration of a credible threat to remove the discharge from oil and gas production operations is presumed to be satisfied based on I) consideration that alternatives to surface discharge is the norm for the industry with an exemption applicable only west of the 98th meridian; and 2) an economic analysis done by EPA Headquarters showing that available treatment options for this industry arc, as a general matter, more expensive than available non-discharge options.

EPA has reviewed the Agency 's 2004 analysis of conventional oil and gas production operations in the State that is cited in Section IV of the *UAA Implementation Policy,* and determined that it no longer supports a categorical credible threat presumption for conventional oil and gas producers. Therefore, EPA's approval of this element of Wyoming's water quality standards revision is based on the condition that Wyoming will not rely on EPA's 2004 analysis to presume that the paragraph 36(a)(3) element of credible threat is met. Until an updated analysis is completed by EPA or Wyoming to support such a presumption, EPA 's approval of WY 's NEB approach is based on the condition that any credible threat demonstration for conventional oil

and gas producers intended to satisfy paragraph 36(a)(3) of Chapter 1 or UAA Factor 131.1O(g)(3) must be supported by site-specific information demonstrating that the discharger will remove the discharge if required to meet the Appendix B criteria. EPA will not approve a reclassification to a Class 20 or 30 use for a water body affected by conventional oil and gas produced waters based on a categorical demonstration of credible threat, unless and until an update analysis has been completed to show that the previous conclusion is still warranted based on current information. (See further discussion of this clement below.)

According to Wyoming's *UAA lmplemenlalion Policy,* Part 2 of the process for designating a water as either class 2D or 3D, the hazard analysis and chemical screening, involves an evaluation of actual or probable hazards to wildlife, livestock and human health by means of bioaccumulation of pollutants through the food chain. The first step involved in the evaluation is a screening of an effluent for pollutants of concern. Section VI states:

> The screening parameters may be different from one type of discharge to another because of differences in the relative probability of the occurrence of bio-accumulative materials associated with the industry or activity. For example, the vast majority of waters in Wyoming that would be candidates for an effluent-dependant classification arc created by the discharge of groundwater to the surface as a result of oil and gas production or mining activities. The types of pollutants that could reasonably be expected to occur are inorganic metals and salts. Of these, only selenium and mercury need to be investigated to determine the hazard potential to wildlife, livestock or humans.
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> A relatively small number of 2D and 3D candidate waters may be created from municipal wastewater treatment plants, industrial facilities such as oil refineries or power generating facilities, and various types of manufacturing operations. Depending upon the circumstances of the discharge, effluents from these facilities may have a higher probability of containing synthetic and organic bio-accumulative materials. In these situations, initial screening parameters will be determined on a case-by-case basis. Because effluent-dependant waters created by these types of discharges will be relatively uncommon and addressed on a case-by-case basis, the remainder of this guidance will focus on those circumstances involving the discharge of groundwater to the surface.

The State evaluated potential risks from selenium in candidate waters for the Class 2D and 3D uses, including mortality and impaired reproduction in waterfowl , shorebirds and piscivorus birds, and selenium poisoning in livestock and terrestrial wildlife. Since classification to a 2D or 3D use would preclude designation to a Class 2A drinking water use, consumption of drinking water was not considered to be a substantial route of exposure for humans. The State determined that the most stringent levels of ambient selenium would be needed for protection of "mortality and impaired reproduction in waterfowl, shorebirds and piscivorus birds." Because selenium is bioaccumulative , the Region agrees that risks to waterfowl, shorebirds and piscivorous birds will need to be evaluated; however, risks to other receptors including aquatic life would also be evaluated using the criteria selected by the State. The State selected the Appendix B chronic aquatic life criterion and whole body bird tissue concentrations of 7.9 µg/g (on a dry weight

basis) as the decision criteria for determination of whether the discharge creates a hazard to waterfowl, shorebirds, and piscivorus birds. If these two levels are exceeded, Section YI states that a "whole body tissue criterion of 7.9 µg/g dry weight selenium will be established for the stream segment and site-specific ambient-based criteria for selenium shall not be established. The stream segment shall be listed as impaired on the state 303(d) list and a TMDL developed to address the tissue based criterion."

For mercury, the State determined that the most stringent levels of ambient mercury would be needed for protection of humans based on various routes of exposure. The hazard evaluation for mercury involves three potential exposure pathways:

The likelihood of bio-accumulation in fish tissue in the immediate Class 20 receiving waters and downstream class 2 waters;

1. The contamination of groundwater aquifers to levels above 2 µg/L;

2. The accumulation of mercury in sediments to levels above the State's guidelines for remediation of contaminated soils.

If the mercury chronic aquatic life criterion value in Appendix B is exceeded and the discharge can be expected to reach a fish bearing water, but whole body fish tissue concentrations arc less than or equal to 0.3 mg methylmercury/kg fish, the ambient water will not be considered a hazard to fish or fish consumption. A whole body tissue criterion of 0.3 mg methylmercury/kg fish will be established for the stream segment along with an ambient-based water column value calculated as provided in Part 3 of Section YI.

If both the chronic aquatic life criterion and the 0.3 mg/kg whole body tissue concentration are exceeded, the water will be considered a hazard, a whole body tissue criterion of 0.3 mg/kg fish tissue criterion will be established for the stream segment, and site-specific ambient-based criteria for mercury will not be allowed. Section VI also states that, in such cases, "The stream segment shall be listed as impaired on the state 303(d) list and a TMDL developed to address the tissue based criterion."

Section VI also addresses the methodology for conducting a hazard assessment for mercury where a discharge is not expected to reach a fish bearing water, as follows:

> Where the initial screening indicates that the effluent concentration of mercury exceeds the Appendix B aquatic life chronic value and the discharge is not expected to reach a fish bearing water, sediment analysis may be required. Ambient-based water quality criteria may be established where sediment concentrations are less than or equal to 23 mg/kg inorganic mercury and 26 mg/kg methylmercury. In no circumstance shall an ambient-based water column criterion exceed 2 µg/L total recoverable mercury.

Section VI also requires a more general screening for parameters with criteria adopted in Appendix B of Chapter 1 that could reasonably be expected to be found in a discharge. Site-

specific ambient criteria will only be established for those parameters that exceed the statewide criteria, and the list of screening parameters will depend upon the type of discharge. For oil & gas produced water discharges, Section VI requires screening for the following parameters:

Arsenic
Cadmium
Chromium (III)
Copper
Lead
Mercury
Nickel
Selenium
Silver
Zinc
Aluminum
Chloride
Iron
Manganese
Sulfide-Hydrogen Sulfide
Hardness

Part 3 of the Section VI process is the development of site-specific criteria for the parameters where ambient levels exceed the criteria values in Appendix B of Chapter 1. Consistent with the requirements of Section 36(a) of Chapter I, site-specific criteria can only be established when the State determines that a net environmental benefit exists, based on meeting the following criteria discussed above:

1. The waterbody is effluent dependent;
2. The discharge has been shown to create an environmental benefit and removal of the discharge would cause more environmental harm than leaving it in place;
3. There is a credible threat to remove the discharge; and
4. Appropriate safeguards are in place, ensuring that downstream uses will be protected and the discharge will pose no health risk or hazard to humans, livestock or wildlife.

Section VI of Chapter I and Section VI of the State's *UAA Implementation Policy* also describes: (I) the circumstances that will apply in cases where 12 monthly samples cannot be collected over the period of a year, (2) the parties responsible for sample collection and analysis, (3) acceptable sampling locations, and (4) references for sample collection and analytical requirements.

Discussion of Wyoming's Section 36(b) Procedure for Calculating Ambient-Based Criteria

Section 36(b) of Chapter I and Section VI of the Wyoming *UAA Implementation Policy* describe the process for calculating ambient-based criteria for eligible parameters. Criteria will be calculated by adding a margin of error to the background concentration. The background concentration is the highest concentration recorded over the course of a one year period with a minimum data set of at least 12 samples. Samples may be collected either at the discharge

outfall or from a representative point in the stream downstream from the permitted outfall, consistent with State guidance. The margin of error is one standard deviation calculated from the same data set used to establish background. Such criteria will be implemented as maximum (not to be exceeded) values. This approach is similar to the method recommended by EPA to address uncertainty in the characterization of wastewater discharges in the *Technical Support Document for Water Quality-based Control,* EPA/505/2-90-001, March 1991, pp. 52 - 54.

Based on discussions with DEQ staff, EPA's understanding is that any subsequent new discharges to 2D or 3D segments where ambient-based criteria have already been established will be required to meet the same ambient-based criteria as the initial discharge that created the effluent-dependent situation (i.e., new ambient-based criteria will not be calculated for each new discharge).

Section 36(b) describes a performance-based criteria derivation procedure that meets EPA's expectations as described in the preamble to the Alaska Rule. Section 36, in combination with the other safeguards contained in the Wyoming *UAA Implementation Policy,* will result in derivation of ambient-based criteria that protect the highest attainable use. For example, the hazard evaluation (as part of the Section 36(a)(4) demonstration) ensures that discharges will not pose an unacceptable health risk[8] or hazard to humans, livestock or wildlife.

It is important to understand that, although EPA will review and approve/disapprove Wyoming actions to assign 2D or 3D use classifications to individual waterbodies, EPA will not separately review and approve the ambient-based criteria that result from application of the approved criteria derivation procedure under the Agency's CWA Section 303(c) authorities. However, through its NPDES permit oversight role, EPA has the authority to review the implementation of the Section 36(b) site-specific criteria adjustment procedure, to ensure it is properly implemented. The NPDES permit process also provides an opportunity for public review and comment on draft permit conditions, which allows stakeholders a chance to comment on, and to challenge if deemed appropriate, the specific application of the performance-based ambient criteria derivation process. Should EPA determine that a permit is based upon derived criteria that do not reflect the methodology, minimum data requirements, and decision thresholds specified in Section 36(b), EPA has the discretion to object to the issuance of NPDES permits, and, if necessary, take actions to veto such permits under the authorities of CWA Sections 402(a)(5) and 402(d)(2).

The State addressed EPA's principal concern with Section 36(b)9 by clarifying that the ambient-based criteria will be implemented as instantaneous maximum values. This provision is key to assigning an appropriate level of protection to these effluent-dependent waters because it assures that the water quality conditions created by the discharge will be maintained and protected. If such criteria were implemented as average values, or as values that allow a certain percentage of samples to exceed the criteria, such an approach would allow the distribution of water quality concentrations initially used to calculate the ambient-based criterion to drift, over time, toward a more degraded condition.

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[8] Section 36(a)(4) of Chapter 1 includes the statement that "the discharge will pose no health risk or hazard to humans, livestock or wildlife."

[9] As discussed in EPA's 3/ 1/2005 comment letter to Wyoming's Water and Waste Advisory Board.

Section 36(b) requires that ambient-based criteria will be based on the highest recorded concentration over a period of one year plus one standard deviation. The addition of one standard deviation is appropriate because, with a relatively small dataset (i.e., a minimum of 12 samples), it is reasonable to expect the true maximum has not been measured.

The New Classifications Facilitate Resolution of Prior EPA Disapproval Actions

The Region recognizes that prior to 2001, Wyoming's water quality standards did not include any aquatic life protections for many effluent-dependent waters (i.e., where Class 4 standards were applicable). That situation changed dramatically in 2001 when, based on an EPA Region 8 recommendation, Wyoming categorically upgraded all Class 4 waters to Class 3 (i.e., aquatic life protection), with the understanding that the 40 CFR Section 131.10(g) use removal factors would allow consideration of site-specific re-classification actions.

Since 2001, and as discussed in Section I of this enclosure, Wyoming has re-classified a number of waters by removing the Class 3 use and replacing it with a Class 4 (non-aquatic life) use, essentially reinstating the water quality standards that were in effect prior to 2001. These revisions were based on site-specific UAAs. The Region accepted the conclusions of certain UAAs, while rejecting the conclusions of others. As indicated in Table 1 of Section I of this enclosure, some of the re-classifications were approved, while others were disapproved by EPA Region 8. EPA Region 8 disapproved [10] revisions that removed aquatic life protections from waters where discharge flows augment the natural flow condition and make attainment of an aquatic life use feasible.

The new effluent-dependent use classifications facilitate resolution of the previous EPA disapproval actions, and will help to avoid the need for future disapproval actions. The new 2D and 3D use classifications protect the highest attainable aquatic life use in effluent-dependent waters. Essentially, the State is refining its use classification system to better reflect the attainable conditions in effluent-dependent waters. Under 40 CFR Section 131.10(c), States have discretion to establish subcategories of a use. Refining aquatic life use classifications based on "innate differences in community structure and function (e.g., high versus low species richness or productivity)" is discussed in Section 2.3 of EPA's *Water Quality Standards Handbook* and is a common State practice.

The Region views Wyoming's action to create the new 2D and 3D effluent-dependent classifications as an appropriate exercise of the discretion provided to States by the water quality standards regulation (40 CFR Section 131.10(c)).

Approval of Wyoming's Ambient-Based Criteria Derivation Provisions is Consistent With Previous EPA Region 8 Approval Actions

The 1998 Advance Notice of Proposed Rulemaking discussed two types of ambient-based criteria that have been adopted by States with EPA approval: (1) criteria based on natural conditions adopted pursuant to 40 CFR Section 131.10(g)(1) and (2) criteria based on human caused conditions adopted pursuant to 40 CFR Section 131.10(g)(3) (63 FR 36761).

[10] See EPA Region 8 action letters dated March 5, 2003, February 24, 2005, and September 14, 2006.

The State of Colorado has adopted, and EPA Region 8 has approved, ambient-based criteria of the type discussed in the 1998 ANPRM. Ambient-based criteria are authorized in Colorado where "evidence has been presented that the natural or irreversible man-induced ambient water quality levels are higher than specific numeric levels contained in tables I, II, and III, but are determined adequate to protect classified uses." See Section 31.7(1)(b)(ii) of Colorado's *Basic Standards and Methodologies for Surface Waters*. EPA Region 8 approved adoption of this Colorado authorizing provision and has also approved various ambient-based criteria adopted by Colorado for individual segments.

The Region's rationale for approving Colorado's ambient-based criteria has relied on the use removal criteria found at 40 CFR Section 131.1O(g)(1) and (3). The infeasibility of attaining a use due to naturally occurring conditions is addressed at 40 CFR Section 131.1O(g)(1), which authorizes use removal if "naturally occurring pollutant concentrations prevent the attainment of the use." The infeasibility of attaining a use due to man-induced pollution is addressed at 40 CFR Section 131.1O(g)(3), which authorizes removal of a designated use where "human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place."

The Region has concluded that these two use removal factors may provide a basis for adoption of ambient-based criteria because, in situations where "naturally occurring pollutant concentrations" or "hum an caused conditions" would justify removing the designated use altogether, it may be more protective - and is at least as protective - to maintain the designated use and establish supporting ambient-based criteria. In either of these two situations, ambient-based criteria arc designed to protect the aquatic life that currently exists or is attainable. In the "human caused conditions" situation, such waters may not be able to support the full range of aquatic species that the natural habitat and water quality would support. However, if the existing water quality conditions truly are irreversible (i.e., the human caused conditions cannot be remedied), ambient-based standards at least ensure that existing conditions do not deteriorate further and provide protection for the aquatic species that occur at the site.

Of course, in establishing ambient-based criteria, it is important to ensure that the highest attainable designated use category is assigned to the waterbody. Whether a change in designated use is warranted depends on how many sub-categories have been created by the State, and whether the designated use currently assigned reflects the highest attainable use category.

EPA has established a national policy that 40 CFR Section 131.1O(g)(1) and 131.1O(g)(3) provide legal authority to adopt variances from water quality standards. [11] The Region has concluded that the same logic supports adoption of ambient-based criteria. For example, in situations where human caused conditions truly cannot be remedied, there is little practical difference between an ambient-based criterion and a waterbody variance for the segment pursuant to 40 CFR Section 131.1O(g)(1) or Section 131.1O(g)(3). In either case, the decision is supported by an attainability evaluation, including appropriate site-specific evidence, and subject to the triennial review requirement to consider any new information regarding attainability.

[11] See March 15, 1985 Memorandum from EPA Office of Water to Regional Water Division Directors, *Variances in Water Quality Standards.*

The Region believes its action to approve Wyoming's new ambient-based criteria provisions is consistent with its previous actions to approve Colorado's ambient-based criteria authorizing provisions and ambient-based criteria for individual segments. Both the Wyoming and Colorado provisions are aimed at establishing criteria reflecting the highest attainable level of water quality and that protect the highest attainable use.

Summary of the State's Process in Relation to 40 CFR Section 131.10(g)(3)

The Section 36 procedure adopted by Wyoming authorizes a new type of ambient-based criteria that EPA Region 8 has not approved previously. Rather than relying on the "human caused conditions that cannot be remedied"language in 40 CFR Section 131.10(g)(3), Wyoming is instead relying on the "human caused conditions that would cause more environmental damage to correct than to leave in place" language of this regulation to justify development of ambient-based criteria. One additional difference is that, whereas Colorado has authorized adoption of ambient-based criteria for all waters statewide, the new Wyoming Section 36 authorizes adoption of ambient-based criteria only for 2D and 3D waters.

When considering whether removal of a discharge from an effluent-dependent stream would result in more environmental damage than leaving it in place, the Region believes it is reasonable for Wyoming to view waterbody uses such as game or nongame fisheries, fish consumption, aquatic life other than fish, recreation, wildlife, scenic value, and agriculture (livestock watering and irrigation) and industry as beneficial. When the State develops an analysis based on 40 CFR Section 131.10(g)(3) for an effluent-dependent waterbody, EPA will review the site-specific information included with the State's submittal, as well as other available information, to determine whether it is reasonable to conclude that the presence of discharge results in an environmental benefit. EPA expects that UAAs will include information regarding water quality and biological characteristics of the segment.

In Part 2 of Section VI of the *UAA Implementation Policy,* Wyoming states that any presumption of environmental benefits for a particular waterbody can be overcome by a demonstration that the quality or condition of the water poses a threat or hazard to non-aquatic wildlife, livestock, industrial uses, or human health. EPA agrees that it is reasonable for Wyoming to allow the presumption of environmental benefits to be overcome under these circumstances.

The next part of the 40 CFR Section 131.10(g)(3) test (Section 36(a)(2)) is a demonstration that remedying the human caused pollution (i.e., treatment of the discharge to meet Appendix B criteria) will cause more environmental harm to correct than leave in place. To meet this element of UAA Factor 3, a UAA for a waterbody to be placed into Class 2D or 3D would have to demonstrate two things. First, it would have to demonstrate that, rather than treat its discharge to meet Appendix B criteria, the discharger would stop the flow of water into the effluent-dependent stream. Second, the UAA would have to demonstrate that, should the discharge stop, the "environmental damage"caused by the loss of discharge (i.e., loss of current environmental benefits - see above - associated with the effluent-dependent nature of the stream) will be greater than any environmental damage caused by leaving the discharge in place.

Wyoming refers to the demonstration that the discharger will cease to discharge if forced to add treatment to meet Appendix B criteria as the "credible threat" demonstration. Section VI of Wyoming's *UAA Implementation Policy* describes a categorical exemption for conventional oil and gas discharges from the credible threat demonstration. This exemption was based on, in part, "an economic analysis done by EPA Headquarters showing that available treatment options for this industry are, as a general matter, more expensive than available non-discharge options." However, EPA has reviewed the Agency 's 2004 analysis of conventional oil and gas production operations in the State and determined that it no longer supports a categorical credible threat conclusion for conventional oil and gas producers . Therefore, EPA believes that compliance with the provisions of paragraph 36(a)(3) cannot, at the time of this action, be assured for this category of discharges without consideration of individual waterbody/discharge circumstances.

EPA is approving paragraph 36(a)(3) of Chapter 1 based on the condition that the State will not implement the credible threat provision for conventional oil and gas production operations on a categorical basis unless and until a revised economic analysis supporting its categorical application is completed . EPA will not approve a reclassification to a Class 2D or 3D use for a water body affected by conventional oil and gas produced waters based on a categorical demonstration of credible threat, unless and until EPA's prior analysis has been updated to show that the previous conclusion is still warranted based on current information .

EPA's approval is based on the condition that any site-specific demonstration of credible threat to remove a conventional oil and gas discharge should include, at a minimum, a statement that the company that owns or operates the well intends to shut-in the well or pursue a non-discharge disposal option if forced to treat the discharge to meet the statewide Appendix B criteria. This may be done in a number of ways, and each demonstration of credible threat will be evaluated on the basis of all the submitted evidence. For example, the "credible threat" element could be supported by evidence demonstrating that cessation of discharge is feasible and that the owner/operator has a financial incentive to discontinue discharge and is not legally bound to continue to discharge. EPA believes it is crucial to a successful demonstration under 40 CFR Section 131.1O(g)(3) that these demonstrations be made. Otherwise, there would not be a basis in the admirustrative record to believe that imposition of additional treatment to meet the Appendix B criteria would lead to a cessation of the discharge and consequent Joss of the environmental benefits derived from it.

Without the discharge, Wyoming's perspective is that beneficial uses created by the discharge either would not exist or, in the case of the wildlife use, would be substantially diminished. With the caveats expressed above, the Region views Wyoming's new effluent-dependent classifications and ambient-based criteria procedure as a reasonable interpretation of 40.CFR Section 131.1O(g)(3). The new provisions provide Wyoming with an ability to determine whether correcting a human caused condition (i.e., an Appendix B criteria exceedance) by requiring treatment of the discharge as necessary to meet Appendix B criteria would result in removal of the discharge, thereby eliminating the uses created by the discharge and causing more environmental damage than allowing the discharge to continue at current effluent quality. The Region's conclusion is that, while the CWA and EPA's regulations do not require States to adopt this type of approach in order to preserve the environmental benefits of certain effluent-dependent streams, they do allow it.

The Wyoming Provisions Significantly Limit the Universe of Waters Eligibl e for Ambient-Based Criteria

Under the revised Wyoming water quality standards EPA is approving today, adoption of a 20 or 30 classification is limited to situations where the four Section 36(a) NEB conditions are demonstrated to be met: (1) the waterbody is effluent-dependent , and, by definition, was an ephemeral waterbody prior to initiation of the discharge of effluent; (2) a discharge has been shown to create an environmental benefit and removal of the discharge would cause more environmental harm than leaving it in place; (3) there is a credible threat to remove the discharge; and (4) appropriate safeguards are in place, ensuring that downstream uses will be protected and the discharge will pose no health risk or hazard to humans, livestock or wildlife. In addressing the potential adverse effects to humans, livestock and wildlife, the hazard analysis would focus on persistent and bioaccumulative toxics in the discharge.

The Region believes the four NEB factors appropriately limit the number and type of waters eligible for reclassification to Class 20 or 30. In particular, the Region notes that Wyoming has constrained the universe of waters eligible for the new program to situations where all of the following are determined to be present:

naturally ephemeral hydrology that would meet the test for removing aquatic life protections pursuant to 40 CFR Section 131.1O(g)(2),
discharge that fundamentally alters the flow condition,
credible threat to remove the discharge if compliance with statewide (Appendix B) criteria is required,
removing the discharge would cause more environmental harm than leaving it in place, downstream uses protected ,and
no health risk or hazard to humans, livestock or wildlife.

Today's EPA Action Regarding Wyoming 's New Use Classifications for Effluent-Dependent Waters and New Procedure for Calculating Ambient-Based Criteria for Those Classifications

New Sections 2(b)(xiii) and 2(b)(xxxviii) added definitions for "effluent dependent water" and "net environmental benefit." These definitions provide clarity to the new rules regarding use classifications. EPA concludes that the revisions to Sections 2(b)(xiii) and 2(b)(xxxviii) arc consistent with Clean Water Act (CWA) Section 303(c) and the implementing federal water quality standards regulation (40 CFR Part 131). Accordingly, the revisions are approved without condition.

4(b)(v), 4(c)(iv), 4(e) and Appendix A(b)(ii)(3) establish new Class 20 and 30 effluent-dependent categories of aquatic life uses and describe the waters eligible for designation for these Classes. Under 40 CFR Section 131.10(c), states have the discretion to establish subcategories of a use. Except for the "credible threat" categorical exemption discussed on pages 24-25, EPA has concluded that Sections 4(b)(v), 4(c)(iv), 4(c) and Appendix A(b)(ii)(3) are consistent with CWA Section 303(c) and the implementing federal water quality standards

regulation at 40 CFR Section 131.10. Accordingly, the new provisions are approved without condition.

Section 18 was revised to clarify that the "Fish Only" human health criteria apply to Class 2D waters. This change is appropriate and will better protect human health consistent with the requirement to assign criteria sufficient to protect designated uses. EPA concludes that the revisions to Section 18 are consistent with CWA Section 303(c) and the implementing federal water quality standards regulation 40 CFR Section 131.11. The revision is approved without condition.

Section 22(b) was revised to add 2D to the list of classifications where the 60 pCi/L criterion for radium 226 applies. Class 2D uses do not include protection of drinking water supplies, therefore it is reasonable to exclude from 2D waters the drinking water-based radium 226 criterion (5 pCi/L, as provided in Section 22(a)). EPA does not have a CWA § Section 304(a) aquatic life criteria recommendation for radium 226, however States must adopt criteria sufficient to protect designated uses (40 CFR Section 131.11(a)(1)). EPA concludes that the revisions to Section 22(b) are consistent with CWA Section 303(c) and the implementing federal water quality standards regulation (40 CFR Section 131.11). The revision is approved without condition.

Section 21(a)(i) was revised to clarify that Class 2D is not subject to the numeric ammonia criteria in Appendix C. It is the intention of the State to implement the narrative ammonia criteria for Class 2D with the authority provided by Section 13 and/or Section 32, which both provide the general authority to keep waters free from toxic substances. However, the State intends to add Class 2D to Section 21 (a)(ii) at the next triennial review. The Region notes that ammonia is a non-priority pollutant and it is reasonable to adjust the requirements for ammonia based on the composition and sensitivity of the aquatic organisms expected to occur. The Region also notes its interest in working with Wyoming to further develop the State's program for controlling ammonia toxicity on segments where only a narrative standard applies. EPA concludes that the revisions to Section 21(a)(i) are consistent with CWA Section 303(c) and the implementing federal water quality standards regulation (40 CFR Section 131.11). The revision is approved without condition.

Section 24 was revised to add Class 2D to the list of waters for which the narrative dissolved oxygen criterion applies. Class 2D waters arc waters where support of the fishery is wholly dependent upon permitted effluent discharges. The narrative criterion provides for protection of aquatic life uses by requiring that "wastes attributable to or influenced by the activities of man shall not deplete dissolved oxygen amounts to a level which will result in harmful acute or chronic effects to aquatic life, or which would not fully support existing and designated uses." Use of such narrative criteria allows flexibility to vary the application of requirement s as appropriate for the various aquatic communities within these classes. The Region notes its interest in working with Wyoming to further develop its program for assuring dissolved oxygen conditions necessary to protect aquatic life on segments where only a narrative criterion applies. EPA concludes that the revision to Section 24 is consistent with CWA Section 303(c) and the implementing federal water quality standards regulation (40 CFR Section 131.11). The revision is approved without condition.

Section 25(d) was revised to clarify that Class 20 is not subject to the Section 25(d) temperature standards for fish. However, Class 20 is subject to the narrative temperature standard in Section 25(a). Similar to the conclusions above regarding ammonia and dissolved oxygen, EPA concludes that Section 25(d) is consistent with CWA Section 303(c) and the implement ing federal water quality standards regulation at 40 CFR Section 131.10 and is approved without condition.

Section 33(b) was amended to provide authority for the Water Quality Administrator to establish ambient-based criteria on effluent-dependent waters. Section 34(b) was revised to clarify that ambient-based criteria do not need to be approved by the Environmental Quality Council and will be established according to the provisions of Section 36. Section 36 describes a performance -based net environmental benefit approach for establishing alternative ambient-based criteria for Class 2D and 3D waters (sec discussion above). EPA has reviewed Sections 33(b), 34(b), and 36, as well as the new Section VI in the *UAA Implementation Policy,* and concludes that these revisions are consistent with CWA Section 303(c) and the implementing federal water qua!ity standards regulation 40 CFR Part 131. The revisions are approved without condition.

Triennial Review Requirement

The water quality standards regulation at 40 CFR Section 131.20(a) requires that states review their water quality standards at least every three years. This is known as the triennial review requirement. As Wyoming gains experience with implementation of the new effluent-dependent use classifications and ambient-based criteria provisions, the need for fine-tuning changes may be identified. For example, Wyoming may identify the need for adjustments to the ambient-based criteria calculation methodology. In addition, experience regarding observed conditions in effluent-dependent waters may support the need for adjustments to Wyoming's method for evaluating environmental benefits and hazards.

The need for such fine-tuning adjustments may, or may not, be identified by Wyoming over the next few years. However, the Region's experience has been that where States develop a new approach for deciding what designated uses and criteria are appropriate on a site-specific basis, the approach often evolves over time. The Region believes that such fine-tuning adjustments are normal and expected, and that the triennial review requirement will ensure that the need for any such adjustments will be considered by Wyoming. Based on the same logic, the Region plans to monitor implementation of the new Wyoming provisions and identify any needed adjustments for the consideration of Wyoming OEQ.